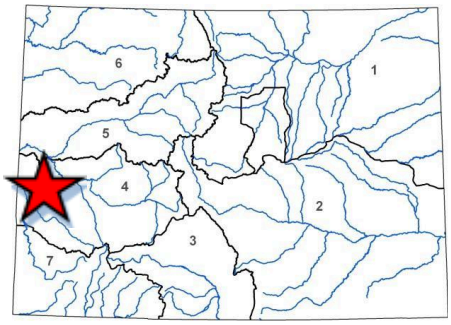
COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Demonstrating Gravity-Powered Micro-Irrigation in Gunnison Basin Agriculture
Shavano Conservation District
September 2025 Board Meeting

Water Plan Grant Program



LOCATION	
Counties: Montrose; Delta; Gunnison; Ouray	
Basin:	Gunnison

DETAILS	
Total Project Cost:	$2,745,400.00
Water Plan Grant Request:	$1,896,000.00
Recommended Amount:	**0**
Match Commitment:	$849,400.00
Grant to Match Ratio	69/31
Project Type:	Study
Primary Project Category:	Agriculture
Measurable Result:	1,020 acre-feet annual efficiency savings

The Shavano Conservation District (District) is seeking Colorado Water Plan grant funding to support the demonstration of gravity-powered micro-irrigation systems and decision support tools on approximately 600 acres of flood-irrigated farmland in the lower Gunnison Basin.

This project aims to demonstrate the N-Drip brand gravity-powered micro-irrigation system on multiple crop types at a larger scale to demonstrate its effectiveness, and increase knowledge of and access to micro-irrigation technologies in the Gunnison basin. Grant dollars would be used for producer and field recruitment, conversion from flood to micro-irrigation, project monitoring and recommissioning the system in year-two, data collection, and final reporting.
N-Drip's patented technology works by using a gravity-powered micro-irrigation system that requires no pressure-based pumps or filters. This allows the system to use a field's existing infrastructure and any water source, making it an alternative to flood irrigation. The applicant estimates that by converting from flood irrigation, the N-Drip system can reduce water use by up to 50%.

This project is proposing a new-to-the-area tool for agricultural producers in the District experiencing drought conditions and seeking methods of irrigating with less water. On-farm irrigation efficiency was identified as a priority in the Gunnison Basin Implementation Plan. Micro-irrigation is a method that applies water directly to the plant's root zone, using a network of pipes and emitters. By delivering a defined amount of water in defined locations this method can minimize nutrient runoff and potentially increase crop yields.

The proposed project aims to support the Colorado Water Plan by sustaining productive, profitable agriculture through increasing on-farm water use efficiency and aims to align with the Water Plan Grant criteria by demonstrating modernized agricultural infrastructure to improve efficiency and reduce water use. By increasing crop yields and reducing farm inputs, the project helps maintain agricultural productivity, rural economies, and food security in Colorado.

The Upper Colorado River Commission awarded N-Drip funds that will be used as project match. Other supporters include the Colorado River District, Gunnison Basin Roundtable, and The Freshwater Trust.

Funding Recommendation:
Staff does not recommend Shavano Conservation District be awarded a Water Plan Grant for Demonstrating Gravity-Powered Micro-Irrigation in Gunnison Basin Agriculture project because the application did not adequately demonstrate project readiness or feasibility.